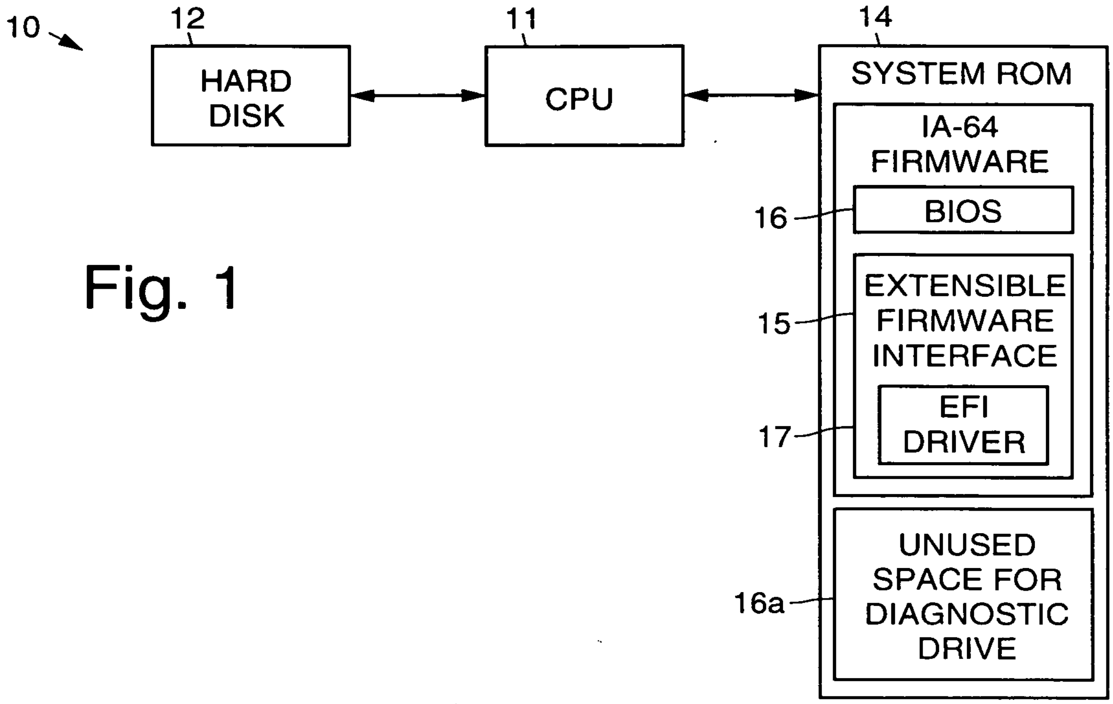
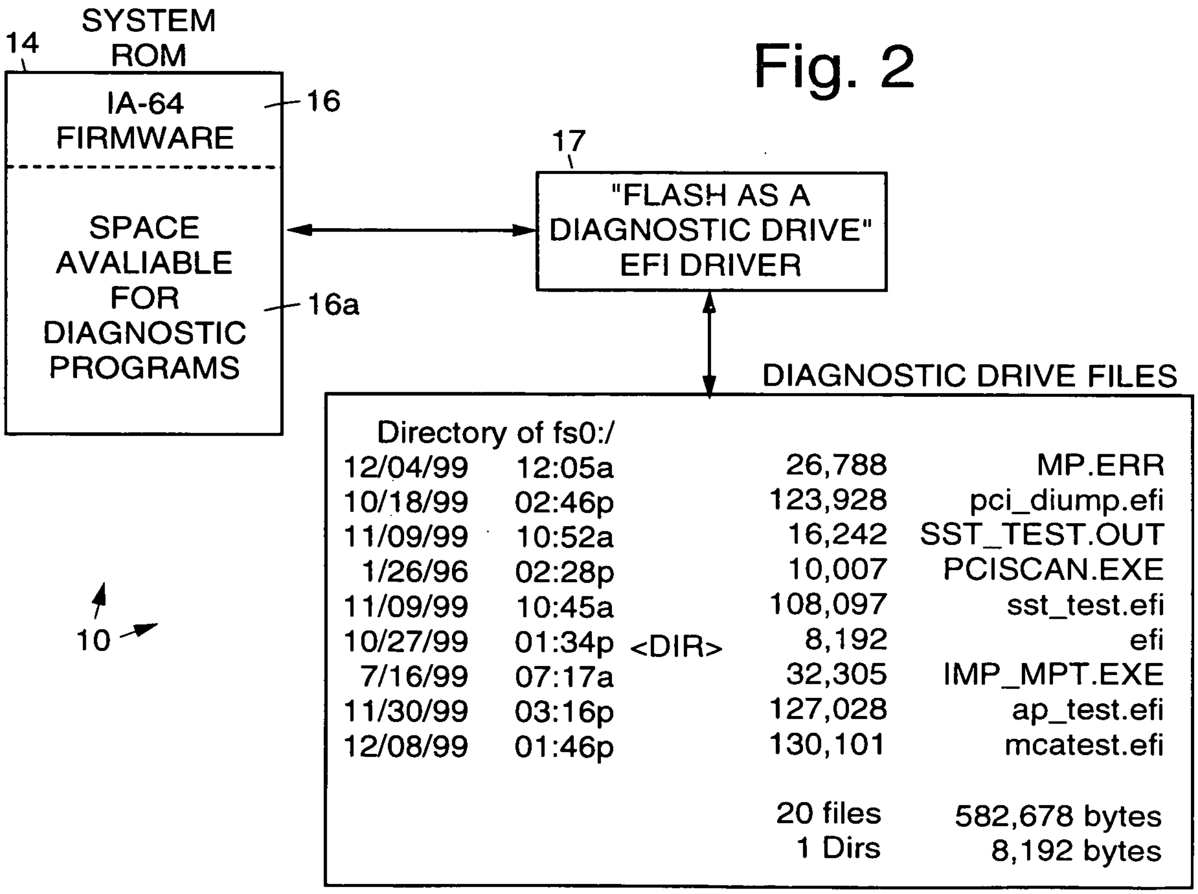


Fig. 1

Fig. 2



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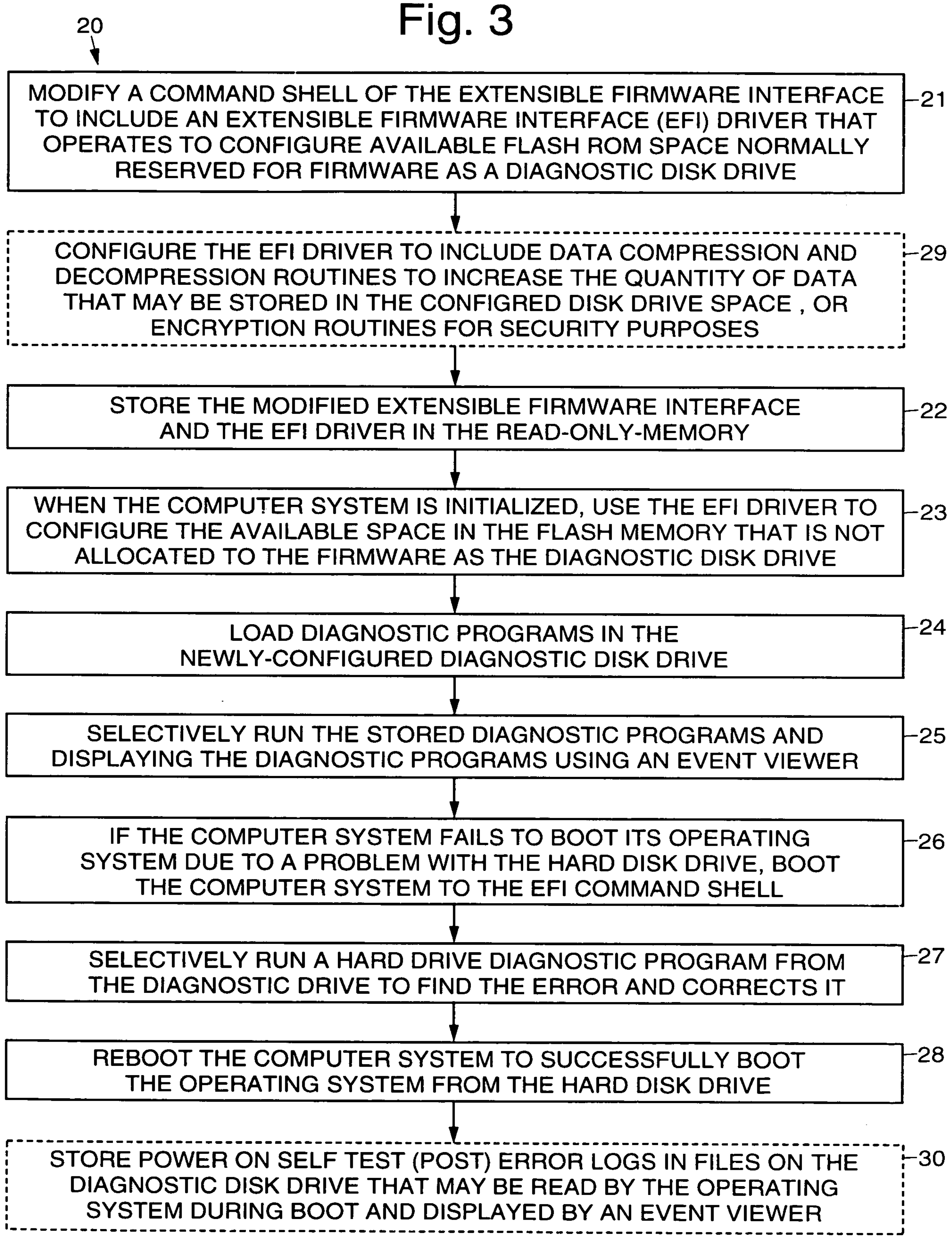
   Directory of fs0:/
12/04/99   12:05a              26,788        MP.ERR
10/18/99   02:46p             123,928  pci_diump.efi
11/09/99   10:52a              16,242 SST_TEST.OUT
 1/26/96   02:28p              10,007  PCISCAN.EXE
11/09/99   10:45a             108,097   sst_test.efi
10/27/99   01:34p  <DIR>        8,192            efi
 7/16/99   07:17a              32,305  IMP_MPT.EXE
11/30/99   03:16p             127,028    ap_test.efi
12/08/99   01:46p             130,101    mcatest.efi

                              20 files   582,678 bytes
                               1 Dirs      8,192 bytes
```

Fig. 3


20
MODIFY A COMMAND SHELL OF THE EXTENSIBLE FIRMWARE INTERFACE TO INCLUDE AN EXTENSIBLE FIRMWARE INTERFACE (EFI) DRIVER THAT OPERATES TO CONFIGURE AVAILABLE FLASH ROM SPACE NORMALLY RESERVED FOR FIRMWARE AS A DIAGNOSTIC DISK DRIVE
21
CONFIGURE THE EFI DRIVER TO INCLUDE DATA COMPRESSION AND DECOMPRESSION ROUTINES TO INCREASE THE QUANTITY OF DATA THAT MAY BE STORED IN THE CONFIGRED DISK DRIVE SPACE , OR ENCRYPTION ROUTINES FOR SECURITY PURPOSES
29
STORE THE MODIFIED EXTENSIBLE FIRMWARE INTERFACE AND THE EFI DRIVER IN THE READ-ONLY-MEMORY
22
WHEN THE COMPUTER SYSTEM IS INITIALIZED, USE THE EFI DRIVER TO CONFIGURE THE AVAILABLE SPACE IN THE FLASH MEMORY THAT IS NOT ALLOCATED TO THE FIRMWARE AS THE DIAGNOSTIC DISK DRIVE
23
LOAD DIAGNOSTIC PROGRAMS IN THE NEWLY-CONFIGURED DIAGNOSTIC DISK DRIVE
24
SELECTIVELY RUN THE STORED DIAGNOSTIC PROGRAMS AND DISPLAYING THE DIAGNOSTIC PROGRAMS USING AN EVENT VIEWER
25
IF THE COMPUTER SYSTEM FAILS TO BOOT ITS OPERATING SYSTEM DUE TO A PROBLEM WITH THE HARD DISK DRIVE, BOOT THE COMPUTER SYSTEM TO THE EFI COMMAND SHELL
26
SELECTIVELY RUN A HARD DRIVE DIAGNOSTIC PROGRAM FROM THE DIAGNOSTIC DRIVE TO FIND THE ERROR AND CORRECTS IT
27
REBOOT THE COMPUTER SYSTEM TO SUCCESSFULLY BOOT THE OPERATING SYSTEM FROM THE HARD DISK DRIVE
28
STORE POWER ON SELF TEST (POST) ERROR LOGS IN FILES ON THE DIAGNOSTIC DISK DRIVE THAT MAY BE READ BY THE OPERATING SYSTEM DURING BOOT AND DISPLAYED BY AN EVENT VIEWER
30